

AMENDED CLAIMS

[received by the International Bureau on 11 October 2004 (11.10.04)
claims 1 and 2 cancelled, claims 3 to 32 renumbered; (8 pages)]

1. An internal treatment apparatus for a patient
comprising a flexible tubular body to be introduced into a
5 patient, said flexible tubular body comprising:

a center opening for inserting therethrough an endoscope
for observing a target site, said center opening extending
through said flexible tubular body from a center of a distal
end face of said flexible tubular body, said distal end face
10 facing said target site, and

a plurality of circumferential apertures through which
surgical instruments are inserted for performing a surgical
procedure on said target site, said plurality of
circumferential apertures being provided to extend through
15 said flexible tubular body from a side face of said flexible
tubular body.

2. An internal treatment system for a patient
comprising:

a flexible tubular body to be introduced into a patient,
20 said flexible tubular body including a center opening for
inserting therethrough an endoscope for observing a target
site, said center opening being circular in cross section and
extending through said flexible tubular body from a center of
a distal end face of said flexible tubular body, said distal
25 end face facing said target site, and a plurality of

circumferential apertures through which surgical instruments are inserted for performing a surgical procedure on said target site, said plurality of circumferential apertures being provided to extend through said flexible tubular body
5 from a side face of said flexible tubular body;

a body manipulating device for manipulating said flexible tubular body from outside said patient;

an endoscope manipulating device for manipulating said endoscope from outside said patient; and

10 a surgical instrument manipulating device for manipulating said surgical instruments from outside said patient.

3. An internal treatment apparatus for a patient comprising a flexible tubular body to be introduced into a
15 patient, said flexible tubular body comprising:

a center opening for inserting therethrough an endoscope for observing a target site, said center opening extending through said flexible tubular body from a center of a distal end face of said flexible tubular body, said distal end face
20 facing said target site, and

a plurality of circumferential apertures through which surgical instruments are inserted for performing a surgical procedure on said target site, each of said plurality of circumferential apertures being provided to extend through
25 said flexible tubular body in an area including said distal

end face and a side face of said flexible tubular body.

4. An internal treatment system for a patient comprising:

a flexible tubular body to be introduced into a patient,
5 said flexible tubular body including a center opening for inserting therethrough an endoscope for observing a target site, said center opening being circular in cross section and extending through said flexible tubular body from a center of a distal end face of said flexible tubular body, said distal
10 end face facing said target site, and a plurality of circumferential apertures through which surgical instruments are inserted for performing a surgical procedure on said target site, each of said plurality of circumferential apertures being provided to extend through said flexible
15 tubular body in an area including said distal end face and a side face of said flexible tubular body;

a body manipulating device for manipulating said flexible tubular body from outside said patient;

an endoscope manipulating device for manipulating said
20 endoscope from outside said patient; and

a surgical instrument manipulating device for manipulating said surgical instruments from outside said patient.

5. The internal treatment apparatus for a patient
25 according to claim 1 or 3, wherein said endoscope is a

stereoscopic endoscope allowing an operator to stereoscopically observe the target site.

6. The internal treatment apparatus for a patient according to claim 1 or 3, wherein

5 said surgical instrument comprises a monitor device allowing an operator to observe a vicinity of a distal end of said surgical instrument.

7. The internal treatment apparatus for a patient according to claim 6, wherein

10 said surgical instrument comprises an illumination device which allows an operator to illuminate a vicinity of said distal end of said surgical instrument with light.

8. The internal treatment apparatus for a patient according to claim 7, wherein said surgical instrument
15 comprises at least one of an air feed device and a water feed device which allows an operator to clean a distal end of said monitor device.

9. The internal treatment system for a patient according to claim 2 or 4, further comprising an image
20 displaying device for displaying an image formed by said endoscope.

10. The internal treatment apparatus for a patient according to claim 1 or 3, wherein said flexible tubular body comprises a resiliently deflectable portion.

25 11. The internal treatment apparatus for a patient

according to claim 1 or 3, wherein said surgical instrument comprises a resiliently deflectable portion.

12. The internal treatment apparatus for a patient according to claim 1 or 3, wherein said flexible tubular body
5 comprises grooves provided between each adjacent said circumferential apertures.

13. The internal treatment apparatus for a patient according to claim 1 or 3, wherein a projection angle of said surgical instruments from said flexible tubular body is
10 smaller than a half angle of a field-of-view of said endoscope.

14. The internal treatment apparatus for a patient according to claim 1 or 3, wherein said endoscope comprises an illumination device which emits white light, and said
15 surgical instruments each comprises an illumination device which emits colored light.

15. The internal treatment apparatus for a patient according to claim 14, wherein each said illumination device of said surgical instruments continuously emits colored light.

20 16. The internal treatment apparatus for a patient according to claim 14, wherein each said illumination device of said surgical instruments emits colored light intermittently.

25 17. The internal treatment apparatus for a patient according to claim 1 or 3, wherein said endoscope comprises

an illumination device, and said surgical instruments each comprises an illumination device which emits light having light intensity different from that of light emitted from said illumination device of said endoscope.

5 18. The internal treatment system for a patient according to claim 2 or 4, wherein

 said endoscope is a stereoscopic endoscope allowing an operator to stereoscopically observe the target site.

 19. The internal treatment system for a patient
10 according to claim 2 or 4, wherein

 said surgical instrument comprises a monitor device which allows an operator to observe a vicinity of a distal end of said surgical instrument.

 20. The internal treatment system for a patient
15 according to claim 19, wherein

 said surgical instrument comprises an illumination device which allows an operator to illuminate a vicinity of said distal end of said surgical instrument with light.

 21. The internal treatment system for a patient
20 according to claim 20, wherein

 said surgical instrument comprises at least one of an air feed device and a water feed device which allows an operator to clean a distal end of said monitor means.

 22. The internal treatment system for a patient
25 according to claim 2 or 4, further comprising an image

displaying device for displaying an image provided by said endoscope.

23. The internal treatment system for a patient according to claim 2 or 4, wherein

5 said flexible tubular body comprises a resiliently deflectable portion.

24. The internal treatment system for a patient according to claim 2 or 4, wherein

10 said surgical instrument comprises a resiliently deflectable portion.

25. The internal treatment system for a patient according to claim 2 or 4, wherein said flexible tubular body comprises grooves provided between each adjacent said circumferential apertures.

15 26. The internal treatment apparatus for a patient according to claim 2 or 4, wherein a projection angle of said surgical instruments from said flexible tubular body is smaller than a half angle of a field-of-view of said endoscope.

20 27. The internal treatment apparatus for a patient according to claim 2 or 4, wherein said endoscope comprises an illumination device which emits white light, and said surgical instruments each comprises an illumination device which emits colored light.

25 28. The internal treatment apparatus for a patient

according to claim 27, wherein each said illumination device of said surgical instruments continuously emits colored light.

29. The internal treatment apparatus for a patient according to claim 27, wherein each said illumination device
5 of said surgical instruments emits colored light intermittently.

30. The internal treatment apparatus for a patient according to claim 2 or 4, wherein said endoscope comprises an illumination device, and said surgical instruments each
10 comprises an illumination device which emits light having light intensity different from that of light emitted from said illumination device of said endoscope.